

REMARKS

The Examiner is thanked for the performance of a thorough search and for the response to the arguments made in Applicant's reply filed on July 31, 2007. Claims 1 and 41 have been amended to more fully clarify the present invention. No claims have been canceled, added, or withdrawn. No new matter has been added. Therefore, Claims 1-41 are pending in the application.

Each issued raised in the Office Action is addressed hereinafter.

I. ISSUES RELATED TO THE PRIOR ART

Claims 1-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Barrrett* (U.S. Pat. 6,473,772), in view of *Yalamanchi* (U.S. Pat. Pub. 2003/0212670), and *Ling Liu* ("Continual Queries for Internet Scale Event-Drive Information Delivery", IEEE Transactions on Knowledge and Data Engineering, Vol. 11, No. 4, Jul/Aug 1999, pp. 610-628). The rejection is respectfully traversed.

To establish a prima facie case of obviousness under 35 U.S.C. § 103(a), the cited reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143. Each of the pending claims recite at least one element that is not disclosed, taught, or suggested by the cited art, either individually or in combination.

A. Claim 1 is patentable over the cited art.

Claim 1 features:

"receiving an expression that identifies an event structure, a first set of one or more conditions related to said event structure, and one or more action preferences in association with said event structure, wherein said event structure defines an event that corresponds with said event structure by defining a set of attributes that describe features of a corresponding event;
storing said event structure, said first set of one or more conditions, and said one or more action preferences in said database;

during a database session,
receiving a first event,
detecting that said first event is an occurrence of said event by comparing said first event to said event structure and **determining that said first event corresponds with said event structure based on said set of attributes defined by said event structure that describe features of a corresponding event.**
based on said detecting, selecting said first set of one or more conditions for evaluation against said first event, and
determining whether said first event satisfies any of said one or more conditions in said first set; and
in response to determining that said first event satisfies any second set of one or more conditions in said first set, then causing performance of an action corresponding to said one or more action preferences.” (Emphasis added.)

At least the above-bolded features of Claim 1 are not disclosed, taught, or suggested by *Barrett*, in view of *Yalamanchi* and *Ling Lui*.

B. The approach of Claim 1.

Claim 1 involves receiving an expression (e.g., a SQL expression) identifying an event structure which defines a set of attributes that specify features of a corresponding event. The event structure may be generally viewed as defining a type of event. Before evaluating conditions relating to a particular type of event, it first needs to be determined what type of event a particular event is. Resources would be wasted by trying to evaluate conditions in view of inapplicable events, i.e., events of a different type than the type of event to which the conditions apply. Such determination is made based on the set of attributes defined by the event structure that specify features of events that correspond to the event structure. Once it is determined what type of event a particular event is, the corresponding conditions can be identified and selected from storage in the database, for evaluation against the event. Accordingly, the method recited in Claim 1 includes detecting that a particular event is in fact an occurrence of an event defined

by the event structure by determining that the particular event corresponds with the event structure based on the set of attributes defined by the event structure.

C. Differences between Claim 1 and the cited art.

Barrett discloses sharply contrasting subject matter than that recited by Claim 1, as *Barrett* lacks any teaching or suggestion of determining that a particular event corresponds to an event structure based on the set of attributes defined by the event structure. Further, as *Barrett* does not teach “an event that corresponds with said event structure by **defining a set of attributes** that describe features of a corresponding event”, it cannot teach “determining that said first event corresponds with said event structure **based on said set of attributes** defined by said event structure that describe features of a corresponding event”.

In *Barrett*, rather than determining the specific type of a particular event based on attributes defined by the specific type of event, the approach of *Barrett* maps causes to effects via a rule set. See *Barrett*, Abstract. The mapping between cause and effect is based on an explicit relationship established by the rule set. See *Barrett*, Figure 5F; col. 8, line 13 - col. 9, line 36. There is no mapping in *Barrett* of an event to a corresponding event structure or type because there is no need in *Barrett* to determine the type of an event. This is because there is only one type of event in *Barrett* (i.e., the library event) to which the rule set is applied. See *Barrett*, Figure 4B; col. 5, lines 50-60 (discussing the library event data structure). Instead of providing a mapping between event instances and types of events, the rule set of *Barrett* provides a mapping between two sets of events of the same type (i.e., a mapping between the cause set of library events and the effect set of library events). Thus, *Barrett* does not teach or suggest “determining that said first event corresponds with said event structure based on said set of attributes defined by said event structure that describe features of a corresponding event.”

The Office Action asserts that *Barrett* teaches determining that an occurrence of an event corresponds to an event structure. *Barrett* does indeed test for a cause corresponding to an observed event, but *Barrett* does not teach or suggest the event structure mechanism, as recited in Claim 1, for determining whether an event is in fact an event that is to be evaluated against a particular set of condition(s). The triggering events of *Barrett* do not detect that a particular event corresponds to a particular event structure and therefore is to be evaluated in the context of a corresponding set of condition(s) by comparing the particular event with a stored event structure that defines the event type.

The foregoing discussion shows that no combination of the cited references of *Barrett*, *Yalamanchi*, and *Ling Lui* teach or suggest each and every limitation of Claim 1. *Yalamanchi* is cited by the Office Action as teaching an event structure defining a set of attributes that describe features of a corresponding event. However, *Barrett* and *Yalamanchi* do not teach or suggest all of the features of Claim 1. In particular, *Barrett* and *Yalamanchi* do not teach or suggest at least “determining that said first event corresponds with said event structure based on said set of attributes defined by said event structure that describe features of a corresponding event”. *Ling Lui* does not cure the deficiencies of *Barrett* and *Yalamanchi*. The Office Action relies on *Ling Lui* solely to teach the limitation of Claim 1 stating “in response to determining that said first event satisfies any second set of one or more conditions...”, and *Ling Lui* does not fill the gaps of *Barrett* and *Yalamanchi*.

Hence, any combination of *Barrett*, *Yalamanchi*, and *Ling Lui* does not teach or suggest the subject matter of Claim 1. One of ordinary skill in the art would not be able to derive the embodiment of Claim 1 from the cited references and, consequently, this embodiment would not be obvious in view of the cited references. Thus, Claim 1 is patentable under 35 U.S.C. § 103(a)

over *Barrett* in view of *Yalamanchi and Ling Lui*. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

D. Independent Claim 41 is patentable over the cited art.

Claim 41 was rejected under 35 U.S.C. § 103(a) as allegedly anticipated by *Barrett* in view of *Yalamanchi and Ling Lui*.

Claim 41 includes features similar to the features of Claim 1 as discussed above. Thus, Claim 41 is patentable under 35 U.S.C. § 103(a) over *Barrett* in view of *Yalamanchi and Ling Lui* for at least the reasons given above with respect to Claim 1. Reconsideration and withdrawal of the rejection of Claim 41 is respectfully requested.

E. The remaining claims are patentable over the cited art.

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each dependant claim includes the features of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional features that independently render them patentable. Due to the fundamental differences already identified, a separate discussion of those features is not included at this time.

II. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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Date: January 2, 2008

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